01-11-05

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Re: Appeal to the Board of Patent Appeals and Interferences

3629

In re Application of:	ALAN R. SHEALY	Group Art Unit:	3629
Serial No.:	09/828,579	Examiner:	I. Borissov
Filed:	April 2, 2001	Our Customer ID:	22827
For:	BUSINESS SUPPORT AND CONTROL SYSTEM AND METHOD	Our Account No.:	04-1403
		Attorney Ref.:	SSM-11.2

Sir:

1. [ ] **NOTICE OF APPEAL**: Pursuant to 37 CFR 41.31, Applicant hereby appeals to the Board of Appeals from the decision dated ____ of the Examiner twice/finally rejecting claims ____.
2. [X] **BRIEF** on appeal in this application pursuant to 37 CFR 41.37 is transmitted herewith (1 copy)
3. [ ] An **ORAL HEARING** is respectfully requested under 37 CFR 41.47 (due within one month after Examiner's Answer).
4. [ ] Reply Brief under 37 CFR 41.41(b) is transmitted herewith (1 copy).
5. [ ] "Small entity" verified statement filed: [ ] herewith [ ] previously.
6. **FEE CALCULATION:**

		Fees
If box 1 above is X'd enter $500.00		$_____
If box 2 above is X'd enter $500.00		$ 500.00
If box 3 above is X'd enter $1,000.00		$_____
If box 4 above is X-d enter –0- (no fee)		$_____
Petition is hereby made to extend the original due date of 10/09/04 to cover the date of this paper and any enclosure for which the requisite fee is (1 month $120); (2 months $450); (3 months $1,020); (4 months $1,590), (5 months $2,160)		$ 1,020.00
	Subtotal	$ 1,520.00
Less any previous extension fee paid since above original due date.	-	$_____
	Subtotal	$ 1,520.00
If "small entity" box 5 above is X'd, enter one-half (1/2 of subtotal and subtract)	-	$_____
	TOTAL FEE	$ 1,520.00

[X] Fee enclosed.
[ ] Charge fee to our Deposit Account/Order Nos. in the heading hereof (for which purpose one additional copy of this sheet is attached)
[ ] Fee NOT required since paid in prior appeal in which the Board of Appeals did not render a decision on the merits.

The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any fees in addition to the fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (deficiency only) now or hereafter relative to this application and the resulting official document under Rule 20, or credit any overpayment, to our Account No. show in the heading hereof for which purpose a duplicate copy of this sheet is attached. This statement does not authorize charge of the issue fee in this case.

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I hereby certify that this paper, papers attached hereto, and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

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ATTORNEY DOCKET NO.: SSM-11.2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re Application of:	Alan R. Shealy	)	Examiner: Igor N. Borissov
Serial No.:	09/828,579	)	Group Art Unit: 3629
Filed:	April 2, 2001	)	Our Customer ID: 22827
Confirmation No.:	6598	)	Our Account No.: 04-1403
For:	Business Support and Control System And Method	)	

Ex Parte APPEAL BRIEF Pursuant to 37 C.F.R. §41.37

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Post Office Box 1450
Alexandria, VA 22313-1450

Honorable Commissioner:

In response to the Final Rejection communications received from the Examiner and mailed on February 10, 2004 with regard to the above-referenced application, Applicant hereby submits this Appeal Brief (together with Section viii: CLAIMS APPENDIX) in accordance with 37 CFR § 41.37 as well as the requisite fee for the Appeal Brief as set forth in 37 CFR § 41.20(b)(2). Notice of Appeal was filed on August 9, 2004.

i. REAL PARTY IN INTEREST:

The real party in interest with respect to the above-captioned application and to this appeal is an assignee and/or any successor interests thereof, which by assignment

recorded on February 10, 2004, at Reel 014981, Frame 0322, is SchlumbergerSema Telekom GmbH & Co. KG, a corporation duly organized, incorporated and existing under the laws of Germany, having its principal office and place of business at Atrogen Building, Otto-Hahn-Strasse 36, 63303 Dreieich, Germany.

ii. RELATED APPEALS AND INTERFERENCES:

Applicant is not aware of any other appeals or interferences that will directly affect or have bearing on the Board's decision on this appeal.

iii. STATUS OF CLAIMS:

The subject application was filed April 2, 2001 and set forth original claims 1-20, with claims 1, 6, 11 and 16 being in independent form. All original claims 1-20 remain pending in the subject application and all claims stand finally rejected. Applicant is appealing the final rejection of claims 1-20.

iv. STATUS OF AMENDMENTS:

No amendments have been filed before or after the final rejection in the subject application. Therefore, no amendments to the claims of the subject application have been made thus far during prosecution of the subject application. A copy of the original claims 1-20 are included in the Claims Appendix of Section (viii) of this Brief.

v. SUMMARY OF CLAIMED SUBJECT MATTER:

A first exemplary embodiment of the present subject matter, set forth in independent claim 1, corresponds to a system for providing for future rate changes in a billing system. Such system includes means for identifying that a future rate plan is to be changed, means for selecting the future rate plan desired, and means for implementing the future rate change.

The various elements of independent claim 1 set forth in a "means plus function" format are implemented by and correspond to various aspects of computer operation. More particularly, Fig. 2 of the subject application represents a general purpose computer that can be programmed for implementing the billing system of the present invention. Such billing system, generally denoted 30 in Fig. 2, can be implemented in software (e.g., firmware), hardware or a combination thereof. As such, the various "means" set forth in independent claim 1 can also correspond to any of such various software and/or hardware combinations operable on and executed by a related computer system.

In one embodiment, the billing system 30 is implemented in software, as an executable program, and is executed by either of a special or general purpose digital computer, such as a personal computer (PC, IBM-compatible, Apple-compatible, or otherwise), workstation, minicomputer, personal digital assistant (PDA) or mainframe computer. See page 5, lines 6-15 of the original specification.

In alternative embodiments, where the billing system 30 is implemented in hardware, such billing system can be implemented with any one or a combination of the following technologies, which are all well known in the art: a discrete logic circuit(s) having logic gates for implementing logic functions upon data signals, an application

specific integrated circuit (ASIC) having appropriate combinational logic gates, a programmable gate array(s) (PGA), a field programmable gate array (FPGA), *etc.* See page 9, lines 15-21 of the original specification.

The corresponding structure for each "means plus function" limitation set forth in claims 1 through 5 has been described. Reference will now be made to the functional steps related to each "means for" element, as set forth in the method steps of independent claim 6.

A second exemplary embodiment of the present subject matter, as set forth in independent claim 6, corresponds to a method for providing for future rate changes in a billing system. Such exemplary method includes the steps of identifying that a future rate plan is to be changed, selecting the future rate plan desired, and implementing the future rate change.

Fig. 4 of the subject application, and the corresponding description found on page 10, line 15 – page 11, line 16 of the original specification, particularly describe various aspects of such methodology as set forth in original claim 6. Referring to the block 63 of the flowchart of Fig. 4, a flag may be set indicating that a future rate plan is to be changed. Observation of such flag would enable the identification that a future rate plan is to be changed, as set forth in the first element of claim 6. A next step of selecting the future rate plan desired is represented in the flowchart of Fig. 4 by box 53, where data regarding new customer rate plans is input to the billing system. The final step of implementing the future rate change relates to the operations represented in box 56 as a step of changing the rate plan when the actual date of future rate plan (then, at such time, a current date) arrives.

With regards to claim 7, box 52 of the flowchart of Fig. 4 represents an exemplary step of determining whether the future rate plan involves a single rate change.

With regards to claim 8, box 54 of the flowchart of Fig. 4 represents an exemplary step of verifying that the future rate plan is consistent with an old rate plan if the future rate change is a single rate change.

With regards to claim 9, box 57 of the flowchart of Fig. 4 represents an exemplary step of selecting the effective date of the future rate plan.

With regards to claim 10, box 62 of the flowchart of Fig. 4 represents an exemplary step of selecting the first day of a next billing cycle.

A third exemplary embodiment of the present subject matter, as set forth in independent claim 11, corresponds to a computer readable medium for providing for future rate changes in a billing system. Such a computer-readable medium may correspond to or be incorporated within a memory 22 such as illustrated in Fig. 2 of the subject application. Software stored in memory 22 may include one or more separate programs, each of which comprises an ordered listing of executable instructions for implementing logical functions. In the example of Fig. 2, the software in the memory 22 includes the billing system and the operating system. See pg. 6 lines 18-21 of the original specification. Furthermore, as disclosed on page 8, lines 12-15 of the original specification, when the billing system 30 is implemented in software, as is shown in Fig. 2, it should be noted that the billing system 30 can be stored on virtually any computer readable medium for use by or in connection with any computer related system or method.

In the exemplary embodiment of claim 11, the computer-readable medium particularly includes logic for acquiring calling card system data, logic for transforming the calling card system data into searchable billing data and customer usage data, and logic for providing queries on the searchable billing data and customer usage data. Such "logic" perform various functions in relationship to a computer readable medium which, after being read by a computer capable of reading such medium, provides instructions for "providing for future rate changes in a billing system" as recited by claim 11.

When the decision support system 50 (see application Fig. 3 and its corresponding discussion) is implemented in software and embodied within memory 22, as represented in Fig. 2, it should be noted that such decision support system 50 can be stored on virtually any computer readable medium for use by or in connection with any instruction execution system, apparatus, or device, such as a computer-based system, processor-containing system, or other system that can fetch the instructions from the instruction execution system, apparatus, or device and execute the instructions. The computer readable medium can be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device or propagation medium. More specific examples (a nonexhaustive list) of the computer-readable medium would include the following: an electrical connection having one or more wires, a portable computer diskette, a random access memory (RAM), a read-only memory (ROM), an erasable programmable read-only memory (EPROM, EEPROM, or Flash memory), an optical fiber, and a portable compact disc read-only memory (CDROM). The computer-readable medium could even be paper or another

suitable medium upon which a program is printed, as the program can be electronically captured, via for instance optical scanning of the paper or other medium, then compiled, interpreted or otherwise processed in a suitable manner if necessary, and then stored in a computer memory. See page 8, line 23 through page 9, line 14 of the original specification.

The various embodiments of computer readable medium set forth in dependent claims 12 through 15 include further "logic" for performing additional functions. Such logic, similar to the logic in independent claim 11, may be embodied in software stored in memory 22 and executed by a selected computer system, as described above.

A still further exemplary embodiment of the present subject matter, as set forth in independent claim 16, corresponds to a system for providing for future rate changes in a billing system, particularly including such elements as an identifier, a selector, and a processor. As previously described with respect to independent claim 6, identification that a future rate plan is to be changed may be effected upon monitoring of the flag set per box 63 of the flowchart of Fig. 4 of the subject application. Similarly, selection of a future rate plan may be done per box 53 of the flowchart of Fig. 4, where information associated with a new customer rate plan is entered. The actual "identifier and selector" that effects such functions are part of a computer system and integrated components thereof. For example, a billing system "identifier" and "selector" may be implemented in software (e.g., firmware), hardware or a combination thereof. Furthermore, in some embodiments, when input is required from a user, such input may be provided from one or more I/O devices as illustrated in Fig. 2 and as described on page 7, lines 17-23 of the original specification. I/O devices may include input devices, for example but not

limited to, a keyboard, mouse, scanner, microphone, etc. Furthermore, the I/O devices may correspond to devices that communicate both inputs and outputs, for example but not limited to, a modulator/demodulator (modem, for accessing another device, system or network), a radio frequency (RF) or other transceiver, a telephonic interface, a bridge, a router, etc.

The processor that implements the future rate changes as set forth in claim 16 may correspond in some embodiments to processor element 21, as illustrated in Fig. 2. As set forth on page 6, lines 1-10 of the original specification, such processor 21 may be a hardware device for executing software that can be stored in memory 22. The processor can be virtually any custom made or commercially available processor, a central processing unit (CPU) or an auxiliary processor among several processors associated with the computer 14, and a semiconductor based microprocessor (in the form of a microchip) or a macroprocessor. Examples of suitable commercially available microprocessors are as follows: an 80x86 or Pentium series microprocessor from Intel Corporation, U.S.A., a PowerPC microprocessor from IBM, U.S.A., a Sparc microprocessor from Sun Microsystems, Inc., a PA-RISC series microprocessor from Hewlett-Packard Company, U.S.A., or a 68xxx series microprocessor from Motorola Corporation, U.S.A.

vi. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

I. Whether claims 11-15 are definite under 35 U.S.C. §112, second paragraph, and particularly set forth and distinctly claim the subject matter which Applicant regards as the invention.

II. Whether claims 6-10 recite a limitation in the technological arts and thus include statutory subject matter in accordance with 35 U.S.C. §101.

III. Whether claims 1, 6, 9, 11, 14, 16 and 19 are patentable under 35 U.S.C. §102(e) over U.S. Patent No. 5,924,486 (Ehlers et al.).

IV. Whether claims 2-5, 7-8, 10, 12-13 15 17-18 and 20 are patentable under 35 U.S.C. §103(a) over U.S. Patent No. 5,924,486 (Ehlers et al.).

vii. ARGUMENT:

I. The invention set forth in original claims 11-15 particularly points out and distinctly claims the subject matter which Applicant regards as the invention.

Original claim 11 sets forth a computer readable medium for providing future rate changes in a billing system. Such computer readable medium more particularly includes logic for identifying that a future rate plan is to be changed, logic for selecting the future rate plan desired and logic for implementing the future rate plan.

Numbered page 2 of the February 10, 2004 Final Rejection Office Action states that claims 11-15 are confusing, because the term "logic" is not descriptive.

Applicant notes that a fundamental principal contained in 35 U.S.C. §112, second paragraph, is that applicants may be their own lexicographer. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as the terms are not used in ways that are contrary to accepted meanings in the art. Furthermore, as noted by the court in In re Swineheart, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the

type of language used to define the subject matter for which patent protection is sought. (See §2173.01 of the MPEP regarding Claim Terminology.)

In light of the above case law and understanding of 35 U.S.C. §112, second paragraph, Applicant respectfully submits that the subject rejection of claims 11-15 is inappropriate. With respect to the term "logic" as used in claims 11-15, the "Modern Dictionary of Electronics," 6th Ed., 1984 defines logic as follows:

> "Logic: ... (3) In computers and information-processing networks, the systematic method that governs the operations performed on the information, usually with each step influencing the one that follows."

The use of the term "logic" in claims 11-15 is not contrary to the above accepted meaning in the art for the term "logic".

Applicant further submits that reference in claims 11-15 to the term "logic" is not inconsistent with the description of such terminology in the specification. Even if the term "logic" was inconsistent with the ordinary meaning in the art, it is adequately defined in the specification. An applicant is entitled to be his or her own lexicographer, and in many instances will provide an explicit definition for certain terms used in the claims. Where an explicit definition is provided for by the applicant for a term, that definition will control interpretation of the term as it is used in the claim.[1]

Applicant has explained in his specification that his billing system may be embodied as software running on various computer devices. For example, page 6 lines 18-21 of the original specification (emphasis added) disclose that:

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1 Markman v. Westview Instruments, 52 F. 3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir.) *(en banc), aff'd*, U.S., 116 S. Ct. 1384 (1996).

> The software in memory 22 may include one or more separate programs, each of which comprises an ordered listing of executable instructions for implementing logical functions. In the example of Fig. 2, the software in the memory 22 includes the billing system 30 and a suitable operating system (O/S) 25.

Furthermore, as disclosed (emphasis added) on page 8, lines 12-15 of the original specification:

> When the billing system 30 is implemented in software, as is shown in Fig. 2, it should be noted that the billing system 30 can be stored on virtually any computer readable medium for use by or in connection with any computer related system or method.

As set forth in the original specification and as thus intended to be reflected by the language of original claims 11-15, the subject billing system when implemented by software can be embodied by a computer readable medium. This computer readable medium, which corresponds to memory 22 in the exemplary embodiment of Fig. 2, includes an ordered listing of executable instructions for implementing logical functions. In claims 11-15, Applicant claims "logic" for performing various functions in relationship to a computer readable medium which, after being read by a computer capable of reading such medium, provides instructions for "providing for future rate changes in a billing system" as clearly recited by the subject claims.

Applicant submits that the term "logic" used in claims 11-15 is clear, concise and appropriate in accordance with an accepted meaning of such term in the art of computer systems and related technology. Furthermore, such claim terminology is clearly disclosed in the subject application. Based on the aforementioned remarks, Applicant respectfully requests reversal of the 35 U.S.C. §112, second paragraph, rejection grounds.

II. Claims 6-10 comply with the requirements of 35 U.S.C. §101, and clearly set forth a new and useful process that provides for a practical application in the technological arts.

Numbered pages 2 and 3 of the February 10, 2004 Final Rejection Office Action allege that original claims 6-10, directed to a method for providing for future rate changes in a billing system, are directed to an abstract idea and do not recite a limitation in the technological arts, and are thus non-statutory subject matter.

Applicant notes that 35 U.S.C. §101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Thus, one of such four categories corresponds to new and useful "processes," to which the subject matter of original claims 6-10 is directed. As such, Applicant has chosen to avail himself of a statutorily sanctioned claim format that is clearly approved and very commonly used to provide protection for the invention disclosed.

Applicant further notes in accordance with guidelines set forth in §2106 (IV)(B)(2)(ii) of the MPEP, that a computer-related process limited to a practical application in the technological arts should be considered as statutory. Also, a claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result: i.e., the method recites a step or act of producing something

concrete and tangible. [2] Furthermore, the applicant is in the best position to explain why an invention is believed useful. Statements made in the specification that identify practical applications for the invention should thus be considered.

Original claim 6 sets forth a method for providing future rate changes in a billing system, including the steps of identifying that a future rate plan is to be changed, selecting the future rate plan desired, and implementing the future rate change. Applicant respectfully submits that the subject matter set forth in independent claim 6 does produce a concrete, tangible and useful result. The steps set forth in the subject method directly result in the selection and implementation of a future rate change. Implementation of rate changes in customer care and billing centers are an important feature for customers in a wide range of applications, including, for example, those related to power supply, gas supply, water supply and telecommunications. Requirements exist in such applications for an ability to change a rate plan effective at some future date or designated billing cycle. Methods employing prorated charges often confuse customers and lead to calls to a network providers' call center(s).

In view of the above concerns with regard to the present subject matter, a method that includes process steps for selecting and implementing future rate changes provides an ability for a change in billing rate plans to become effective at some future date. Additionally, there is an ability to provide for a change in rate plan to become effective immediately, at some preselected time, or on a next billing cycle run. Changing the rate plan to be effective on the next billing cycle prevents the prorating of services from appearing on a customer's bill, thus reducing customer confusion and a

2 *AT&T*, 172 F.3d at 1358, 50 USPQ2d at 1452.

resultant level of customer complaints. The subject method for implementing future rate plans in a billing system also affords a great amount of rate changing versatility and does so in an efficient and fast manner of execution. See page 10, lines 3-14 of the original specification.

Based on the above remarks, Applicant submits that the steps set forth in claims 6-10 do produce a concrete, tangible and useful result, and are thus statutory in accordance with 35 USC §101. Reversal of the rejection grounds based on such alleged non-utility is respectfully requested.

III. Claims 1, 6, 9, 11, 14, 16 and 19 are patentable under 35 U.S.C. §102(e) over Ehlers et al. (U.S. Patent No. 5,924,486).

Before setting forth a discussion of the prior art patent applied in the subject Final Rejection Office Action, it is respectfully submitted that controlling case law has frequently addressed rejections under Section 102.

"For a prior art reference to anticipate in terms of 35 U.S.C Section 102, every element of the claimed invention must be identically shown in a single reference." Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 677, 7 U.S.P.Q.2d 1315, 1317 (Fed Cir, 1988; emphasis added). The disclosed elements must be arranged as in the claim under review. See Lindemann Machinefabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). If any claim, element, or step is absent from the reference that is being relied upon, there is no anticipation. Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986). Anticipation under 35 U.S.C. Section 102 requires that there be an identity of

invention. See Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, ___, 225 U.S.P.Q. 635, 637 (Fed. Cir. 1985). In PTO proceedings, claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Sneed, 710 F.2d 1544, 1548, 218 U.S.P.Q. 385, 388 (Fed. Cir. 1983).

With respect to each of the four independent claims in the present application, i.e., claims 1, 6, 11, and 16, it will be observed that every one of these claims recites a system, a method, or a computer readable medium "for providing for future rate changes in a billing system." As such, the presently claimed subject matter is directed to various aspects involving a billing system. More specifically, Applicant is concerned with the concept of providing a simple way of modifying the rate plans that are stored within a billing system. Applicant's concerns encompass such concepts as recognizing that a rate plan will be changed at some future date, providing mechanisms whereby the new rate plans can be effected on a specific date, either immediately or at some specified time in the future, and actually implementing the changes in the rate plans.

More specifically, each of independent claims 1, 6, and 11 recite a "means for," "step of," or "logic for" identifying that a future rate plan is to be implemented, selecting the future rate plan, and implementing the future rate plan. Independent claim 16 is couched in slightly different terms in that the claim recites a system including specific elements, to wit, "an identifier," " a selector," and "a processor" associated in a similar manner to the concepts of the three above identified "means for," step of," and "logic for" as recited, respectively, in the first three independent claims.

In contrast, the disclosure of Ehlers et al. is directed to an environmental condition control and energy management system and method as may be observed

from even the title of such disclosure. The principal object of such disclosure is to manage energy usage in such a manner as to maintain a controlled environmental condition (temperature) at the least possible cost.

As outlined in their Abstract, Ehlers et al. provide a system with a plurality of inputs where a user may enter desired input parameters such as desired indoor environmental condition range for at least one energy unit price point. Further, a processor, coupled to the inputs, computes an environmental condition deadband range for multiple energy unit price points based on the user input parameters, and controls at least one energy-consuming load device to maintain the indoor environmental condition within the computed deadband range for the then-current energy unit price point. Finally, Ehlers et al.'s Abstract points out that the processor may communicate with at least one energy supply company and select one energy supply company for a premise, to minimize energy consumption costs.

In summary, Ehlers et al. have disclosed a system wherein a user is able to enter desired heating and cooling parameters and a target energy cost, and the control processor controls a heating/cooling system to attempt to maintain the desired settings and goes so far as to "shop around" among energy suppliers to obtain the best currently known available price. While there are aspects of communicating with energy supply companies to ascertain their pricing for energy, simply put, Ehlers et al. do not disclose a billing system as is the subject of each and every claim in the present application.

With specific reference to the outstanding rejection, the Examiner alleges that Ehlers et al. disclose "identifying that a future rate plan is to be changed," "selecting the future rate plan desired," "implementing the future rate change," and "selecting the

effective date of the future rate plan" and, in each instance, points to column 11, line 22 to column 12, line 4 and/or column 9, lines 35-49 and/or column 27, line 66 to column 28, line 4 as allegedly providing support for such claimed elements.

With regards to the material pointed out by the Examiner, Applicant notes that the Examiner has highlighted by circling the word "future" multiple times on the copy of Ehlers et al. he has kindly provided. In each instance however, the text surrounding the word "future" does not relate to future rate changes but rather to future energy usage. For example, column 11, starting at line 22 states (emphasis added):

> Process function 31 provides a load estimation process, predicting future energy loading for other processes and for energy providers which will need to obtain customer-provided information to manage future load requirements. Function 31 will track usage by reading function 11 meter input data, if available, and track the effect of weather by reading function 13 weather input data, if available. Based on available data, function 31 will provide a load estimate for the subsequent day, week or month. Historic data will be used if available in long term storage. If no data is available, then this function will be dormant. Load estimates will be stored in function 21 and provided to the selected energy provider once chosen and also used in the form of load profile and energy consumption data to make that selection in process 32.

Further in column 11, starting at line 44, Ehlers et al. state (emphasis added):

> Decisions will be made with user-specified criteria and possibly based also on predicted future uses, historical usage patterns, weather patterns or forecasts, etc.

Such references to "future" load requirements and "future" uses have **no bearing** on the setting of a future price structure by an energy supplier in a billing system, as Applicant is claiming in respective independent claims 1, 6, 11 and 16.

As to the aspect of "selecting the future rate plan desired," Ehlers et al. do mention selecting energy suppliers with relation to the costing process. For example, at column 11, starting at line 66, Ehlers et al. state (emphasis added):

> The costing process uses inputs read in function 21, the consumption data from function 11 and the selected energy supplier's rate table data from function 12 to determine cost for storage in function 21 and to provide energy consumption data to the energy supplier, provided no automatic meter reading system or service is available to the supplier.

Also, at column 9, lines 42-46, Ehlers et al. state:

> Each energy provider will have its rate tables identified and can have other factors included such as the length of time the tables are valid, discounts for the length of time the service is continuously used and penalties for excessive energy usage during certain time periods.

Again, the referenced text in Ehlers et al. clearly relates to the concept of selecting an energy supplier to meet the user-established criteria and to aspects of the "shopping around" concept discussed above. The processor in Ehlers et al. does look at rate tables of energy suppliers but those are **current** rate tables and related information as supplied by the energy suppliers. Again, there is **no disclosure** of a mechanism, plan, arrangement or any other scheme for "providing for **future rate changes** in a billing system" as Applicant is claiming (emphasis added).

Finally, with respect to the concept of "selecting the effective date of the future rate plan," the Examiner has pointed to column 27, line 66 to column 28, line 4. However, the text from the cited location sets forth:

> For example, if the user enters the key sequence to begin entering cost information, then the user will be prompted for supplier ID, rates, start time for each rate, length of time the rate is valid, fees, the HVAC consumption in kilowatts and the correct time, day, date and 12 or 24 hour format, for examples.

Again, the Examiner has highlighted a feature by circling the word "rates" in this passage. It should be appreciated, however, that the cited passage is describing acts performed by the user of Ehlers et al.'s environmental control system. That is, the user is entering data based on information currently available to him. Such information may very well include a date on which a price change will become effective, but such is not a date of the user's selection, but rather a date that such user is told a price change will become effective. Applicant's claimed invention, on the other hand is not claimed to be configured to inform customers in advance when a price change is to become effective, rather it is configured so that a price change is efficiently put in place **at a future date** by means of a processor within the billing system of a commodity or service supplier.

With respect to dependent claims 14 and 19, alleged by the Examiner to also be anticipated by Ehlers et al., such claims both relate to the concept of selecting the effective date of the future rate plan. As is apparent from the above discussion, the user in Ehlers et al. is an individual who sets up or programs the disclosed system to control the environmental conditions of an area based upon predetermined criteria. Such "user" clearly has no prior knowledge of what plans the energy suppliers have with respect to rates they plan to charge in the future. Such user also does not have any prior knowledge of when these rates are to become effective, as such is a function of management decisions of the energy suppliers. Ehlers et al.'s system is able to communicate with various energy suppliers, determine their **existing** rates and then select a supplier based on those rates and the other criteria established by the user of the system.

Applicant's claimed invention, however, goes to the other side of the coin. That is, Applicant is concerned with the supplier side and the ability to program a billing system for ease of establishing rate changes at a future date.

In light of the above remarks, Applicant submits that Ehlers et al. fail to disclose all elements of claims 1, 6, 9, 11, 14, 16, and 19. As such, reversal of the rejection of such claims under 35 U.S.C. 102(e) is respectfully requested.

IV. Claims 2-5, 7-8, 10, 12-13, 15, 17-18 and 20 are patentable under 35 U.S.C. §103(a) over Ehlers et al. (U.S. Patent No. 5,924,486).

Before setting forth a discussion of the referenced prior art patent, it is respectfully submitted that controlling case law has frequently addressed rejections under Section 103. In addition to the well-known required multi-step analysis of Graham v. John Deere Co., 381 U.S. 1, 148 U.S.P.Q. 459 (S. Ct. 1966), and its progeny, the Court of Appeals for the Federal Circuit has on numerous occasions offered its guidance concerning the propriety of Section 103 rejections.

> Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so3. (emphasis original)

The task of the Patent Office is essentially a burden of proof not just to show prior patents with selected elements similar to respective parts of a claimed

3 ACS Hospital Systems, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

combination, but to show teachings to support obviously combining the elements in the manner claimed.

> Virtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, ' 103.4 (footnotes omitted)

In In re Deminski, 230 U.S.P.Q. 313 (Fed. Cir. 1986), the court reversed a Patent Office Board of Appeals decision rejecting claims for obviousness, saying: "There [was] nothing in the prior art references, singly or in combination, 'to suggest the desirability, and thus the obviousness' of the [claimed subject matter]." Id. at 315; emphasis original. The court noted that the relied-on reference did not address the technical problem addressed by the claimed invention (and in fact taught away from the Applicant's invention), and stated the well-established principle that "[h]indsight analysis is clearly improper. . . ." Id. at 316.

In Bausch & Lomb v. Barnes-Hind/Hydrocurve, 230 U.S.P.Q. 416 (Fed. Cir. 1986), the court vacated a district court holding of invalidity for obviousness. In doing so, the district court was criticized for viewing teachings from the prior art in isolation, instead of considering the prior art references in their entirety; for entering the tempting but forbidden zone of hindsight analysis; for failing to view the claimed invention as a whole; and for disregarding express claim limitations. Id. at 419, 420.

> It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position to the exclusion of other parts

4 Panduit Corp. v. Dennison Manufacturing Co., 1 U.S.P.Q. 2d 1593, 1603 (Fed. Cir. 1987).

> necessary to the full appreciation of what such reference fairly suggests to one skilled in the art5. (emphasis added)
>
> The Supreme Court in Graham and Adams . . . foreclosed the use of substitutes for facts in determining obviousness under section 103. The legal conclusion of obviousness must be supported by facts. [footnote omitted] Where the legal conclusion is not supported by facts, it cannot stand. . . .
>
> A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. . . . It [the Patent Office] may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis. . . .
>
> [W]e may not resolve doubts in favor of the Patent Office determination when there are deficiencies in the record as to the necessary factual bases supporting its legal conclusion of obviousness6. (emphasis original)

Finally, the PTO Board of Appeals noted the following in Ex parte Clapp: "[S]implicity and hindsight are not proper criteria for resolving the issue of obviousness.7"

The following analysis of the present rejection is respectfully offered with guidance from the foregoing controlling case law decisions.

Applicant notes that each of the aforementioned claims are dependent either directly or indirectly on independent claims 1, 6, 11, or 16 and, therefore, are allowable at least for the same reasons as the independent claims, as set forth in the above Argument III of Section (vii) of this Brief. In addition, the present rejection is based

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5 Bausch & Lomb v. Barnes-Hind/Hydrocurve, 230 U.S.P.Q. 416, 419 (Fed. Cir. 1986).

6 In re Warner, 379 F.2d 1011, __, 154 U.S.P.Q. 173, 177, 178 (C.C.P.A. 1967).

7 Ex parte Clapp, 227 U.S.P.Q. 972, 973 (PTO Bd. App. 1985).

solely on the same Ehlers et al. patent as applied against the above referenced independent claims as well as claims 14 and 19.

Applicant also notes that numbered pages 4 and 5 of the February 10, 2004 Office Action set forth various statements alleging that aspects of certain claims are "well known" prior art. Such statements more particularly set forth:

> Official Notice is taken that it is well known that utility service providers have various plans for different groups of customers. ...
> Official Notice is taken that it is well known that utility service providers estimate service rates based on utility usage history data. ...
> Official Notice is taken that it is well known that a customer can select a first day of a billing cycle or can be charged on the pro-rated basis.

Similar assertions were made by the Examiner in the previous Office Action dated August 14, 2003. Such similar assertions were merely stated in a different fashion. Namely, instead of taking official notice of such features as "well known" in the art, previous statements alleged that such features were "obvious matters of design choice."

In Applicant's response to the August 14, 2003 Office Action (which response was filed November 14, 2003), such assertions were seasonably challenged. Applicant respectfully called for an affidavit or, as an alternative, the citation of prior art, to support such asserted positions. Applicant presently submits that the Examiner has failed to provide the supporting documentary proof requested by Applicant.

Applicant again traverses the Examiner's statements that such features are "well known" prior art. In accordance with §2144.03 of the MPEP, when an Applicant traverses such assertions as mentioned above, the Examiner should cite a reference in support of his or her position. Failing to do so, Applicant submits that the USPTO has failed to properly make out a prima facie case of obviousness.

Because claims 2-5, 7-8, 10, 12-13, 15, 17-18 and 20 variously depend from otherwise allowable independent claims 1, 6, 11 and 16 and further limit same, such claims should also be allowed. Furthermore, no specific evidence has been sufficiently submitted by the Examiner disclosing all elements of the dependent claims. As such, Applicant respectfully requests reversal of the outstanding rejection of claims 2-5, 7-8, 10, 12-13, 15, 17-18, and 20 under 35 U.S.C. 103(a).

CONCLUSION :

In view of the foregoing, Applicant respectfully submits that present claims 1 through 20, clearly meet all requirements of 35 U.S.C. Sections 101 and 112, and clearly and patentably define over the applied Ehlers et al. reference, within the meaning of 35 U.S.C. Sections 102 and 103, wherefore reversal of the grounds of rejection stated in the subject February 10, 2004 Final Rejection, is requested.

Respectfully submitted,

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viii. CLAIMS APPENDIX

In accordance with 37 C.F.R. §1.121, the claim listing below includes the status and text of all claims.

1. (Original) A system for providing for future rate changes in a billing system, comprising:

means for identifying that a future rate plan is to be changed;

means for selecting the future rate plan desired; and

means for implementing the future rate change.

2. (Original) The system of claim 1, further comprising:

means for determining if the future rate change is a single plan change.

3. (Original) The system of claim 2, further comprising:

means for verifying that the future rate plan is consistent with an old rate plan if the future rate change is the single plan change.

4. (Original) The system of claim 3, further comprising:

means for selecting the effective date of the future rate plan.

5. (Original) The system of claim 4, further comprising:

means for selecting the first day of a next billing cycle if the future rate change is not a single plan change.

6. (Original) A method for providing for future rate changes in a billing system, said method comprising the steps of:

identifying that a future rate plan is to be changed;

selecting the future rate plan desired; and

implementing the future rate change.

7. (Original) The method of claim 6, further comprising the step of:

determining if the future rate change is a single plan change.

8. (Original) The method of claim 7, further comprising the step of:

verifying that the future rate plan is consistent with an old rate plan if the future rate change is the single plan change.

9. (Original) The method of claim 6, further comprising the step of:

selecting the effective date of the future rate plan.

10. (Original) The method of claim 6, further comprising the step of:

selecting the first day of a next billing cycle if the future rate change is not a single plan change.

11. (Original) A computer readable medium for providing for future rate changes in a billing system, comprising:

logic for identifying that a future rate plan is to be changed;

logic for selecting the future rate plan desired; and

logic for implementing the future rate change.

12. (Original) The computer readable medium of claim 11, further comprising:

logic for determining if the future rate change is a single plan change.

13. (Original) The computer readable medium of claim 12, further comprising:

logic for verifying that the future rate plan is consistent with an old rate plan if the future rate change is the single plan change.

14. (Original) The computer readable medium of claim 11, further comprising:

logic for selecting the effective date of the future rate plan.

15. (Original) The computer readable medium of claim 11, further comprising:

logic for selecting the first day of a next billing cycle if the future rate change is not a single plan change.

16. (Original) A system for providing for future rate changes in a billing system, comprising:

an identifier that identifies that a future rate plan is to be changed;

a selector that enables a user to select the future rate plan desired; and

a processor that implements the future rate change.

17. (Original) The system of claim 16, further comprising:

a determiner that determines if the future rate change is a single plan change.

18. (Original) The system of claim 17, further comprising:

a validator that validates that the future rate plan is consistent with an old rate plan if the future rate change is the single plan change.

19. (Original) The system of claim 16, wherein the selector is configured to enable a user to select the effective date of the future rate plan.

20. (Original) The system of claim 16, wherein the selector is configured to select the first day of a next billing cycle if the future rate change is not a single plan change.

ix. EVIDENCE APPENDIX

Not Applicable

x. RELATED PROCEEDINGS APPENDIX

Not Applicable